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### HOG CHOLERA ACTIVITIES

All States and Puerto Rico are again considered hog cholera "Free." Puerto Rico lost its free status in May, but regained it on November 16, 1974.

Only one case has been diagnosed in the continental United States during the past 17 months. This case occurred in Mississippi on February 7, 1974.

The United States Animal Health Association (USAHA) Committee on the Nationwide Eradication of Hog Cholera has recommended that the Nation be declared officially hog cholera free 18 months after the last positive case, followed by a 3-year surveillance program. This is the same as that recommended in May 1974, by the Secretary of Agriculture's Advisory Committee on Hog Cholera Eradication.

Surveillance for hog cholera is continuing on a regular basis. It presently consists of investigation of sick swine reports, laboratory screening, and inspection of swine.

Laboratory support consists mainly of screening swine tissues by the fluorescent antibody (FA) tissue section test on swine submitted to State diagnostic laboratories. Approximately one-half of the States screen tissues from all swine submitted to the laboratory; the remainder test those they consider suspicious for hog cholera.

Inspection of swine and reporting of sick swine have always been of paramount importance for early detection of hog cholera. Swine are routinely inspected in markets and on garbage feeding premises. Many are inspected prior to and following interstate and intrastate movement. In addition to this, over 95 percent of swine slaughtered receive antemortem and postmortem inspection.

Surveillance for the period of July 1, 1974, through September 30, 1974, was as follows:

	<u>Herds</u>	<u>Swine</u>
On-the-farm inspection	35,829	2,046,565
Market inspection	127,921	2,613,047
Slaughter inspection	-	18,608,000
FA screening	1,257	36,252
Totals:	<u>165,007</u>	<u>23,303,864</u>

The numbers of herds under laboratory screening are in some cases estimates as are numbers of herds and swine under the market inspection category.

## USDA RESTRICTS IMPORTS TO PREVENT EXOTIC NEWCASTLE DISEASE IN POULTRY

Import regulations for poultry products have been extended by the U.S. Department of Agriculture to include similar products from all other birds if they originate in or pass through a country infected with exotic Newcastle disease.

Changes in the Federal Code, effective November 8, 1974, restrict imports of carcasses, meat, and other products--including non-hatching eggs--from countries where exotic Newcastle disease is known to occur. Previously only products of poultry and some closely related game birds were restricted; other sections of the Federal Code regulate imports of live birds and hatching eggs.

The amended regulations will help to prevent the reintroduction of exotic Newcastle disease, a highly destructive infection of poultry and other birds. One major outbreak in southern California during 1972-73, resulted in the destruction of over 11-million birds before the virus was eradicated.

The amended regulations provide that: (1) Poultry disease surveillance and inspection in exotic Newcastle disease virus infected countries must meet Animal and Plant Health Inspection Service (APHIS) standards and follow procedures used successfully in the United States before imports of non-hatching eggs will be permitted, (2) Flocks from which non-hatching eggs originate and neighboring flocks must be found free of disease, and all shipments must be disinfected and packed according to prescribed procedures, (3) Carcasses, meat, and products of poultry or other birds must be packed in hermetically sealed containers and cooked by commercial methods after packing so they may be stored without refrigeration, (4) Carcasses of game birds (migratory species of ducks, geese, pigeons, and doves) may be imported if they have been eviscerated and the heads and feet removed, (5) Museums, educational institutions or other establishments may import carcasses or products if they demonstrate that they can store, process and disinfect the materials without introducing disease into this country, and (6) Any other imports of the regulated products may be made only with the approval of the APHIS Deputy Administrator for Veterinary Services on a case by case basis.

In addition, the amended regulations enlarge the list of foreign countries considered to be free of exotic Newcastle disease and therefore exempt from these regulations. Formerly only Canada was listed; eight other exotic Newcastle disease free nations have now been added: Australia, Denmark, Finland, Iceland, New Zealand, Norway, Republic of Ireland, and Sweden.

## HURRICANE FIFI

Dr. George O. Winegar, Veterinary Services aftosa adviser to Nicaragua and Honduras, traveled to Tegucigalpa, Honduras, September 23, 1974, after that country was hit by Hurrican Fifi.

Dr. Winegar made the trip after hearing that Honduras was to receive aid--in the form of dried milk and other foodstuffs--from several South American and European countries.

He and Dr. Celio Barreto, OIRSA representative, met with the United Nations resident representative and made recommendations on countries from which different types of foods would be acceptable in relation to animal disease prevention. This information was passed on to the United Nations for distribution to all countries sending aid.

Drs. Barreto, Winegar, and his counterpart for Honduras, Dr. Luis Espinosa, then traveled to San Pedro Sula, Honduras, to assist in organizing inspection procedures for planes arriving with aid in the form of animal products. They also worked with quarantine inspectors in Puerto Cortez and La Ceiba where aid arrived by ship.

Because some powdered milk from countries affected with foot-and-mouth disease was distributed, a surveillance program was initiated to check the livestock for signs of vesicular disease. However, a lack of personnel prevented as extensive a survey as would be ideal.

In subsequent trips, Dr. Winegar worked on reinforcing this vesicular disease surveillance work in the field. At present there have been reports of 14 vesicular disease outbreaks from the area hit by "Fifi." Of the diagnoses received thus far, all have been vesicular stomatitis, type New Jersey, which is endemic in all of Central America.

In some areas, a large number of livestock drowned, and the survivors were stolen by rustlers or "cuateros." Fifi also forced many farmers to move their cattle to new pasture areas. This livestock movement will present new problems in controlling animal disease.

#### SWINE VESICULAR DISEASE IN GREAT BRITAIN

Five further outbreaks of swine vesicular disease have been reported in England. October 9, 1974, the disease was diagnosed at Hayton, Retford, Nottinghamshire; October 11, 1974, at Watton-at-Stone, East Hertfordshire; October 16, 1974, at Brentwood, Essex; October 17, 1974, at Bishop's Lydeard, Taunton Deane, Somerset; and October 20, 1974, at North Cadbury, near Yeovil, Somerset.

Restrictions were placed on the infected premises and the pigs involved were slaughtered.

Since December 11, 1972, when swine vesicular disease was first confirmed in England, there have been 284 outbreaks of the disease, involving the slaughter of 167,267 pigs.

#### AUSTRALIAN KELPIE SHEEPDOG GETS USDA RECOGNITION FOR DUTY FREE IMPORT

The Australian Kelpie, a breed of sheepdog, has been officially recognized by



the U.S. Department of Agriculture (USDA), thereby becoming eligible for duty free import into the United States.

This USDA breed recognition is required before pedigreed animals may be granted free entry under an Animal and Plant Health Inspection Service (APHIS) certificate.

APHIS recognizes various breeds of animals on the basis of books of records maintained by individual breed associations, which are listed in the Code of Federal Regulations--9 CFR 151. Individual animals of recognized breeds--including cattle, horses, asses, sheep, goats, swine, dogs and cats--must be accompanied by pedigree papers and descriptions when presented for duty free import into the United States.

Records of the Australian Kelpie are maintained in the Working Kelpie Council National Stud Book at P.O. Box E, St. James, Sidney 2000, Australia.

USDA recognition became effective November 13, 1974.

### IMPORTED ECTOPARASITES AND PESTS OF MAN AND ANIMALS

Since the early 20th century, scores of arthropod species have accidentally been brought to North America. Before this time, transoceanic travel was slow enough that most arthropod pests of man and animals died enroute. But today's high speed means of transportation can move cargo around the world in a few days. Some of the outstanding arthropod aliens to become established in North America since 1915 include the imported fire ant (ca. 1918), the face fly (1953), the red-legged tick (1960), and the louse-fly (1970).

The imported fire ant, Solenopsis invicta Buren, a native of South America, entered the U.S. during World War I. Its date of initial entry is not known, but records show it was here in 1918. It is believed to have entered the U.S. at Mobile, Alabama, as a stowaway in ship cargo or ballast. Since 1918, the imported fire ant has spread through many of the southern states and now occupies more than 120 million acres in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, and Texas.

The ants prefer to build their nests or mounds in areas exposed to the sun. Such areas as improved pastures and hay field may have as many as 50 mounds per acre. Many queen ants are produced within one mound each year. The mated queens are carried by the wind, and new colonies have been found as far as 12 miles from the nearest mature mound.

When the fire ants are disturbed, they become viciously aggressive and will attack man and animals. The ants inflict painful, burning stings, which form blisters. Humans receiving multiple stings may require hospitalization, and at least 11 humans have died as the result of imported fire ant stings. Thousands of people in the southern United States are stung by this ant each year.

Had the future impact of the imported fire ant on U.S. economy and comfort been realized in 1918, immediate controls and eradication probably would have been  
(continued on page 9)

# DISPOSABLE ANIMAL ISOLATION UNIT

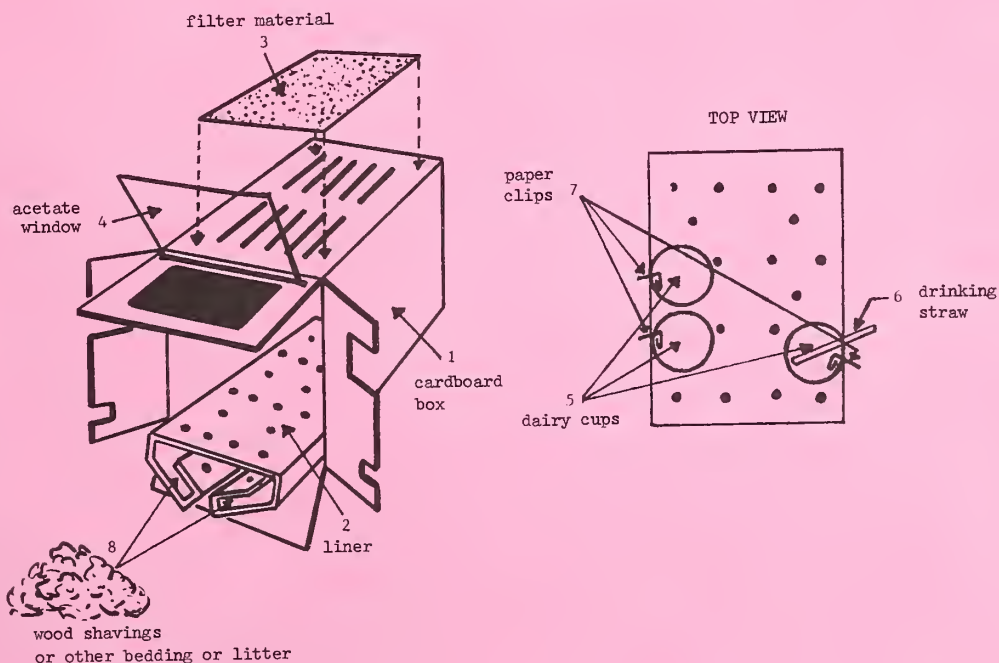
During the widespread outbreak of exotic Newcastle disease (VVND) in southern California in 1972, the isolation and characterization of the VVND virus became bottle-necked because only one agent could be used at a time in the open laboratory rooms. This disposable animal isolation unit solved the problem by allowing numerous birds to be isolated simultaneously in the same open animal room.

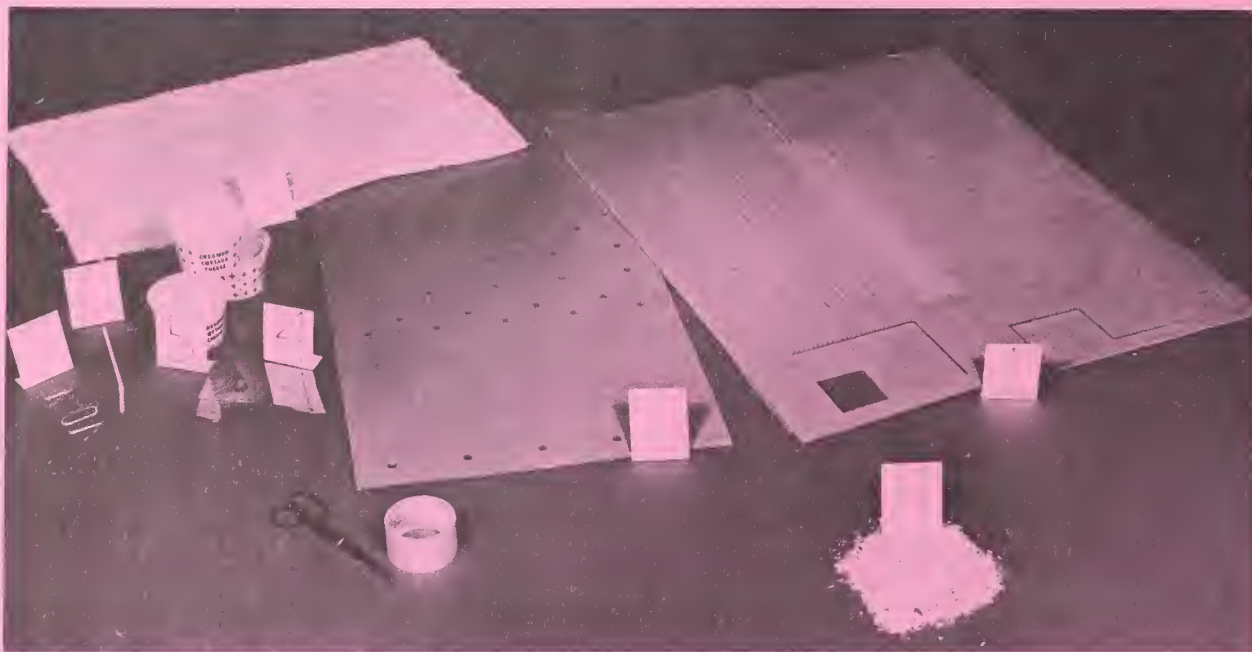
The initial concept of using virus filters without having to force air into the unit was developed at the National Animal Disease Center (NADC), Ames, Iowa. The filter material is identical to that used at NADC, Plum Island, Ft. Detrick and other high security virus containment laboratories. The cardboard boxes were designed to ship SPF pigs via air express.

These boxes were used during the 1972 outbreak for (1) holding birds inoculated with Newcastle disease virus to determine if the virus were velogenic viscerotropic or a non-lethal endemic strain; (2) transporting sentinel birds to farms; (3) bringing live sick birds to the laboratory and (4) holding birds at ports of inspection. The units could also be adapted for use in isolating any small animals such as mice, guinea pigs, hampsters, rats, etc.



Disposable Animal Isolation Unit





Parts of disposable animal isolation unit

- \*1. cardboard box
- \*2. liner
- \*3. filter material
- \*4. acetate window
- 5. dairy cups
- 6. drinking straw

- 7. paper clips
- 8. wood shavings or other bedding or litter

Scissors (or knife) and 2" wide masking tape are needed for assembly.

\* Items provided in kit available from address on back.

#### TO ASSEMBLE:

- 1. Assemble box and tape all corners except front corners.
- 2. Assemble liner and fill with wood shavings or other litter.
- 3. Insert liner and feed and water cups.





4. To secure feed and water cups -- make small slits in box above cups and anchor cups with paper clips passed through slits.
5. To attach drinking straw for adding water daily -- make a 1" to 1½" slot to allow passage of drinking straw. Insert straw into slot and place end in drinking cup. Bend straw to close passageway and tape to outside of box. Be sure to cover end of straw with tape.



6. Seal slots for paper clips and drinking straw with masking tape. It is very important that the holes be completely covered and the tape pressed down firmly.



7. Fold front flaps and tape all corners.
8. Attach acetate window to large front opening, but do not seal shut.
9. Cover bottom opening with tape.
10. Place filter over top vents and seal with tape.
11. After placing inoculated animals in box, seal acetate window in front with tape.



Things to Remember:

1. Fill feed and water cups before placing animal in box.
2. DO NOT OVERCROWD ANIMALS. Box can accomodate one adult or two four-to-six week old broiler-type chickens.
3. Water should be inserted through straw with a syringe. Be sure to re-seal top of straw with tape after each use.
4. Use flashlight to examine birds through acetate window.

To Order kit (box, liner, acetate, filter) for official use, contact:

Dr. G. B. Van Ness  
USDA, APHIS-VS  
Agriculture Research Center East  
Beltsville, MD 20705

For further information concerning use contact:

Technical Support Staff  
Emergency Programs  
USDA, APHIS-VS  
FCB-1, Rm. 757  
Hyattsville, MD 20782

(continued from page 4; Imported Ectoparasites and Pests of Man and Animals) attempted and the pest might have been contained in a smaller area. But the pest was allowed to spread and today's imported fire ant control program is an annual multimillion dollar effort involving equal funding and cooperation by the federal and southern states governments. A very high price is being paid to control an insect pest that could have been reduced to non-significant levels if attacked when first discovered.

The face fly, Musca autumnalis De Geer, was first recorded in North America in Nova Scotia, 1952. The species--common to Europe, North Africa, and east Asia--was found in New York in 1956, and spread southwest through the Mid-Atlantic States, and then to the West. By 1965, the fly was established in Washington, Idaho, Utah, Nebraska, Missouri, Tennessee, Georgia, and all other states to the north and east. It is now established in 43 of the 48 contiguous states. Only Arizona, New Mexico, Texas, Louisiana, and Florida are without established face fly populations. Apparently, there is an environmental barrier that protects those five states. Other Southern States may show face fly populations only in the northern counties.

The face fly is a pest of horses and cattle, and, as the name suggests, prefers the mucoid and lachrymal substances around the eyes and nose. Often 30 or more flies can be found on a cow's face, creating sufficient annoyance to encourage several cows to cluster, head-to-tail for mutual fly protection. Such fly annoyance can greatly reduce livestock production.

Recently, the face fly has been incriminated as a vector for an eyeworm (Thelzia sp) that causes blindness of cattle and deer. Also, the fly has demonstrated the ability to mechanically transmit hog cholera.

Annually, millions of dollars are spent by U.S. stockmen for the control of this recent emigrant-pest. If a disease transmissible by the fly were to become epizootic in any of the 43 infested states, the fly's presence could increase greatly the cost of a disease eradication program. Since the fly spends 4-6 hours during the middle of each day on livestock and the remainder of the day on vegetation or inanimate objects near the livestock, effective face fly insecticide would need to be applied to the entire epizootic area.

The red-legged tick, Rhipicephalus evertsi Neuman, was introduced to the U.S. in 1960. At that time the U.S. Department of Agriculture, in cooperation with the Florida State Livestock Board, was involved in a program to eradicate the tropical cattle tick, Boophilus microplus (Canestrini) in Florida. During a guided tour of the zoo an inspector noted many ticks attached in the perianal area of an eland. Just before the eland died eight ticks were removed and later identified as the red-legged tick common to Africa. The program to eradicate the red-legged tick, before it could spread to other zoos (especially by transfer of livestock) or to the surrounding farming community, was initiated November 1, 1960. Animal and area treatment was terminated on January 15, 1962, after eradication was declared successful.

The red-legged tick is a vector of piroplasmiasis (Babesia bigemina of cattle, and B. equi and B. cabelli of horses, mules, and donkeys) East Coast Fever (Theileria parva), pseudo-East Coast Fever (Theileria mutans), and spirochetosis



(Borrelia theileri). The red-legged tick in Africa infests all species of equines and ruminants.

In 1970, cheetahs shipped to the United States from Africa were distributed to five zoos in four states--Georgia, Texas, and Oregon--with one zoo each and California with two. Within 2 years, four of the five zoos were known to have large populations of the alien louse-fly, Hippobosca longipennis. This ectoparasite of mammals is normally found in Africa and Asia, but is adaptable to a wide range of climates. It is parasitic on members of the families: Canidae (dogs, foxes, wolves), Felidae (cats, bobcats, lions, tigers, leopards), Hyadenidae (hyena), and Viverridae (civets), and has been observed feeding on cattle. Although it is not known to be a biologic vector of animal diseases, it is a potential vector of blood pathogens. The louse-fly can be a public nuisance since it will bite man and inflicts a painful wound comparable to the sting of a yellow jacket.

Soon after the cheetahs were received at the Orange County Lion Country Safari compound in California, they were dusted with a combination of 5 percent carbaryl (Sevin) and sulfur for fleas. The animals received two treatments within 1 month. Meanwhile, the crates in which they were shipped were stored by the food preparation building which was treated daily in a routine fly control program. The combination of timely "flea" control for the cats and incidental fly control about the shipping crates prevented the hippoboscids from establishing residence in that compound.

The cheetah compound in Georgia essentially eradicated its 4 year old louse-fly population by mid-September, 1974. In May, a louse-fly control program was started which included an application of 5 percent carbaryl dust to all cheetahs in the infested compound on a biweekly schedule. The animals were grouped about a piece of meat and were all treated at one time. In July, the cheetahs were inspected and a few louse-flies were found. In September, no louse-flies were found on the animals and no pupae were found in the compound.

Unfortunately, the louse-flies have not been controlled at the other zoos that received the initial shipments of cheetahs in 1970. Also, infested cheetahs from one zoo have been transferred to zoos in Colorado, Ohio, and Pennsylvania. At this time, there is no law that prevents the interstate shipment of zoo animals that are known vectors of exotic insect pests.

It has been shown by the two zoos with effective louse-fly controls that carbaryl is very effective for controlling adult louse-flies. However, each state wishing to use the carbamate insecticide must apply to EPA for authorization for a Use in Conflict Label. Carbaryl labels do not list Hippobosca longipennis as a target insect.



# WORLD DISEASE REPORTS\*

Country	Date 1974	New Outbreaks	Country	Date 1974	New Outbreaks
<u>Foot-and-Mouth Disease</u>					
Argentina	May 16-June 30	87	Laos	April-June	1
Bolivia	January-May	32	Lebanon	June-July	11
Brazil	May 18-31	199	Liberia	August	1
	June 15-July 26	381	Mozambique	April	1
Chile	July 1-15	6	Paraguay	February-March	7
	August	3	Peru	June 16-July 15	7**
Colombia	June-August	69**		August	3
Ecuador	August 1-15	4	Rhodesia	July	1
Egypt	August	4	Tanzania	Dec.1, 1973-	
Ghana	May-July	51		May 31, 1974	7
Hong Kong	June-July	5	Thailand	March-May	35**
India	March-April	79	Togo	March-June	4
Iran	July-August	18	Turkey	May 16-July 15	113
Iraq	June 16-30	6	Uruguay	June-August	7
	July 16-August 31	39	U.S.S.R.	June-July	28
Ivory Coast	January-May	9	Venezuela	May	4
Kenya	June	3			
<u>Rinderpest</u>					
India	March-April	91	Viet Nam	January-July	1
Kenya	January-June	1			
<u>Contagious Bovine Pleuropneumonia</u>					
Angola	June-July	4	Kenya	June	1
Ghana	May-July	13	Senegal	May-June	1
India	February-March	11	Togo	January-June	4
Ivory Coast	January-April	4			
<u>Lumpy Skin Disease</u>					
Madagascar	February	8	South Africa	May-July	2
<u>Sheep Pox</u>					
Greece	May-June	6	Morocco	June-July	55
India	March-April	12	Senegal	April-May	2
Iran	July-August	21	Tunisia	June-July	1
Iraq	April 16-July 15	45**	Turkey	May 16-July 15	108
	August	15**	U.S.S.R.	April-July	1
<u>Dourine</u>					
Morocco	June-July	2	U.S.S.R.	February-July	8
South Africa	May-July	2			

Country	Date 1974	New Outbreaks	Country	Date 1974	New Outbreaks
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### African Swine Fever

Angola	June-July	2	Portugal	June 16-August 15	14
Malawi	April	1	Spain	June 16-August 31	35
Mozambique	April	1			

### Teschen Disease

Austria reported this disease on September 9, 1974, on 3 farms. Quarantine and slaughter of pigs initiated.

( \*Extracted from International Office of Epizootics Monthly Circulars No.'s 332 and 333).

(\*\*Cases).

### FOREIGN ANIMAL DISEASE SURVEILLANCE

During the months of October and November, 1974, eleven investigations of suspicious foreign animal diseases were made. Five of these were in Bexar, Burleson, Franklin, Jones, and Donley Counties, Texas. One investigation was conducted in each of the following Counties: Anderson, Tennessee; Macon, North Carolina; Tomokins, New York; Carver, Minnesota; Door, Wisconsin; and Jackson, Oklahoma. All investigations were negative for foreign animal diseases.

The following foreign animal disease diagnosticians conducted investigations during this period: Dr. W. R. Eskew; Dr. G. C. Janney; Dr. R. K. Jenner; Dr. L. E. Moffit; Dr. S. S. Newcomb; Dr. R. W. Page; Dr. L. E. Seay; and Dr. F. G. Vickers.

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